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*Mrs. Herbert's*  
*Scientific System*

◇ OF ◇

DRESS CUTTING

◇ FOR ◇

SELF-INSTRUCTION.

— ◆ —  
PUBLISHED BY  
THE DRESSMAKERS' TRADE SCHOOL.  
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## INTRODUCTION.

There are not many people who devote time to the improvement of dress-cutting systems, because there are not many people who have original thoughts or inventive minds. Most people do not like to think; they are inclined to adhere to old methods, as they have learned them from others, and that is why it is very seldom that any new ideas are introduced in connection with dress-cutting systems. That is also the reason why there are so few really good dressmakers. The average dressmaker seldom rises in skill and ability above the one who has been her teacher, and is satisfied with what others teach them, but occasionally there is one who studies her business for herself, and therefore makes better dresses than others. The author is one of the few who have not been satisfied with what others have taught them. I have experimented and studied myself until I could produce better work than those who taught me. I made a special study of cutting and designing until I was satisfied that I knew more about it than most of the dressmakers and ladies' tailors. After learning the trade thoroughly from a practical dressmaker, I procured every system of dresscutting that I could find in Europe and in this country. I spared neither time nor money in obtaining them. After I had studied them all and felt that I was better informed about dressmaking than others, I naturally had a desire to teach others what I had learned, and that is one of the reasons why I undertook to write a book on the subject.

This book is intended as a help to dressmakers, whose knowledge of dresscutting is insufficient, and who desire to improve without special instruction. It is also designed to be a text book for dressmaking schools, and as such it will greatly facilitate the study of the pupils as well as the work of the teacher.

The system of cutting as outlined in this book is superior to any other system heretofore published. It is not only simpler and easier to learn, but it will produce better fitting dresses than other systems. If the measures are taken accurately and the work is done well, the dress will fit without trying it on. This is perhaps its greatest advantage, for there are no other systems of which the same statement could be truthfully made. Another advantage of the system is its small number of measures and its simplicity, requiring less time to learn it than other systems on account of the small number of details belonging to it. Another thing that must be mentioned is the fact that no chart, machine, drafting instrument or complicated scales are needed, and that any one in possession of the book can acquire and use

the system anywhere, without buying any other contrivances. Nearly all other systems make use of some patented device, such as scales, charts, etc., without which the book or the system cannot be used. These devices do not seem to be as essential to the dressmaker as they are to their inventor, who makes it to be a constant source of revenue to him. The ordinary charts and drafting machines are, as a rule, a hindrance in making good dresses for persons of varying figures, while the scales are a useless incumbrance, making it harder and more expensive to learn a system without any corresponding benefits.

The scales can easily be dispensed with by the dressmaker who is thoroughly competent, but the inventor cannot do without them, because he would lose the means of selling a high-priced system of his own. The system explained in this book will enable any one to do without devices of any kind, except a pencil and tape measure.

One of the systems advertised most is made of metal, and it is described as a French Garment Drafting Machine. It is claimed by the manufacturers that it saves time and does good work. The machine is ingenious enough in itself, but it can never take the place of brains, and is certainly a disadvantage for learning the art of dress-cutting well. It will not produce good dresses in all cases, and the person who can cut only with the aid of this machine cannot be considered competent.

Another useless contrivance largely advertised is a system based upon scales. It may be called a Taylor system, but it is not a true tailor system. These scales make it very hard to learn, for they make it necessary to remember many figures and useless details that are of no benefit. The systems based upon scales require no charts, and are advertised for that reason as being better than the systems based upon charts or other so-called inventions, which is true in one respect at least; but the scales used in these systems are just as useless as the charts or drafting machines in the other. If the scales were dispensed with and proper instruction and explanations based upon inches substituted, the system could be learned in less time and would not be so easily forgotten, but the inventors of the scale systems would, of course, lose a chance to sell a system at more than double price of their real value, and they would lose their alleged claim of originality and to a distinct system of their own.

Methods of dress-cutting are as universal as methods of arithmetic or penmanship. There is a difference in the skill of the dressmaker or the teacher, but there are no patents that are any better than the methods used

by the intelligent dressmaker, who has no use for such inventions. Those who wish to adapt dressmaking as a calling should be sure to learn a method without machines or scales, as they would hardly be able to find employment if they were not able to get along without anything except pencil and tape measure.

### HINTS ON DRESSMAKING.

There are two things necessary to acquire proficiency in the art of making dresses—the one is practice, the other is good instruction. Good instruction must naturally precede the practice, for without good instruction there cannot be any satisfactory results. There are two ways to obtain the necessary instruction; the one is to serve an apprenticeship under a dressmaker, the other is to attend a good school or to have special instruction. A few months of such systematic instruction will give more knowledge of details than a few years of routine work with a dressmaker who has no desire to show her those parts of dressmaking that would enable a girl to cut and make dresses independently.

Many different things are necessary to make a perfect dress, and practice in every detail is necessary to develop an expert dressmaker. Some time must be spent in learning to take measure, in basting, boning, draping, trimming, sewing every part of a dress, cutting, designing, etc., and every separate part of a dress, the skirt as well as the sleeves and waist, require separate practice.

### TASTE AND JUDGMENT IN DRESSMAKING.

The mere ability to cut and sew mechanically does not constitute a good dressmaker. The dressmaker who desires to be financially successful, as well as the lady who desires to make her own dresses satisfactorily, must have some taste and judgment in regard to color and style. The color of goods must be in harmony with the complexion, and the style must agree with the figure of a person.

### APPROPRIATE COLORS.

There are no iron rules about colors, but while the proper selection of colors is in some degree only a matter of judgment, there are certain prin-

ciples that should be understood by every dressmaker and every lady who desires to dress becomingly.

In regard to color I will repeat what has been written by others:

Sallow women should not wear creamy white, as it will emphasize the sallowness of their complexion.

A florid complexion looks well in black, with a creamy white front and collar, to soften the contrast.

Red looks well with dark hair and fair skins, or flaxen-haired children and blonds.

A dull complexion may be lightened up with bright colors.

Pale colors are not becoming to people with pale complexions.

Shades that are becoming in daylight may not look well in the evening. Dresses to be worn in the evening are often selected better in artificial light than during the day.

There have been many rules proposed by artists and literary people, but they are hard to follow, and if I mention these rules here, it is only to let each person form her own ideas about them.

A prominent writer says that complexion must be the first thing to be considered, then the hair and the eyes. About navy blue she says that it has an odd effect upon any skin except a fresh, rosy blonde, but if you combine pink or gold with it the entire effect is different. According to this those who wish to appear young must avoid navy blue.

For some people almost any color is becoming, especially medium blondes. Light blondes can wear anything except deep pink, reddish purple, yellowish brown, gold and red.

A gray complexion must avoid navy blue, brick red, yellowish green and tan colors.

Sallow brunettes must wear something that gives them the rosy flush which they need. They must avoid all blues, gray, violet, white and green, but their appearance will be improved by deep and rose pink, orange, yellow, bright and dark red, reddish brown and purple.

Black is becoming to most people.

It is hard to remember all the principles of color. Taste and judgment must give the decision in most cases.

#### APPROPRIATE STYLE.

After considering color as regards complexion, we must consider style in regard to form, figure and size. Very few people are perfect in form from

an ideal standard of beauty. Some are too stout, some too short, some too tall, some too thin, some have long necks, some have too short a waist, and so on. Every lady must cover up any of these defects as much as possible, and every dressmaker must know how to harmonize style and figure.

A short, stout woman should not wear sleeves as wide or big as the tall, thin woman, and the design for the very tall woman naturally differs from the design made for the very short woman.

There are certain things that emphasize the natural deficiencies of the body and they should be avoided.

V-shaped necks should not be worn by women who have a long, thin face, because it will attract attention to the long face.

Large belts, large plaids, large figures as well as very rough goods should be avoided by short and stout persons.

The slender woman of medium size can wear almost anything, but she is not so very frequent.

The first aim of a dressmaker should be to regulate the dresses she desires to make, so as to disguise the bad points of a person's appearance and to emphasize her good points. A very short and stout person should aim to appear more slender than she is. Whatever makes her appear to be taller makes her appear to be more slender.

In making a dress for a very stout person the dressmaker's aim should be to attract the eyes up and down the figure instead of across it. This can be done by unbroken lines in the pattern from neck to hem, trimmings that run up and down, narrow strips in dress materials, etc.

Tailor-made garments show a stout figure to advantage. An over-stout person should not have her dresses too tight. A slim and slender woman may wear large sleeves, but they should not be so large as to be unnatural.

Whatever is suitable for an over-stout person is to be avoided by the thin woman. A thin woman can adopt fluffy fashions that make her appear stouter than she is. Trimmings on her dress should go across instead of up and down on her dress.

Every good dressmaker studies these points for herself, and will find this very easy work if she will bear in mind that her object is always to conceal the weak points and emphasize the good ones in the figure and complexion of her customer.

## DRESS CUTTING SYSTEMS.

In order to accomplish our objects, that is, to adopt the style of a lady's dress to her figure, we must have a good system of designing and cutting. We cannot, as a rule, use ready-made patterns, for they require too many alterations and are for persons of average figures. It is not safe to use any ready-made chart or drafting machine system either, because such instruments do not adapt themselves to different shapes as accurately as necessary. It may be possible to use them for any size and form, but in many cases they require too many alterations, and the changes are too difficult to make for persons who have not learned the art of designing without the aid of such instruments.

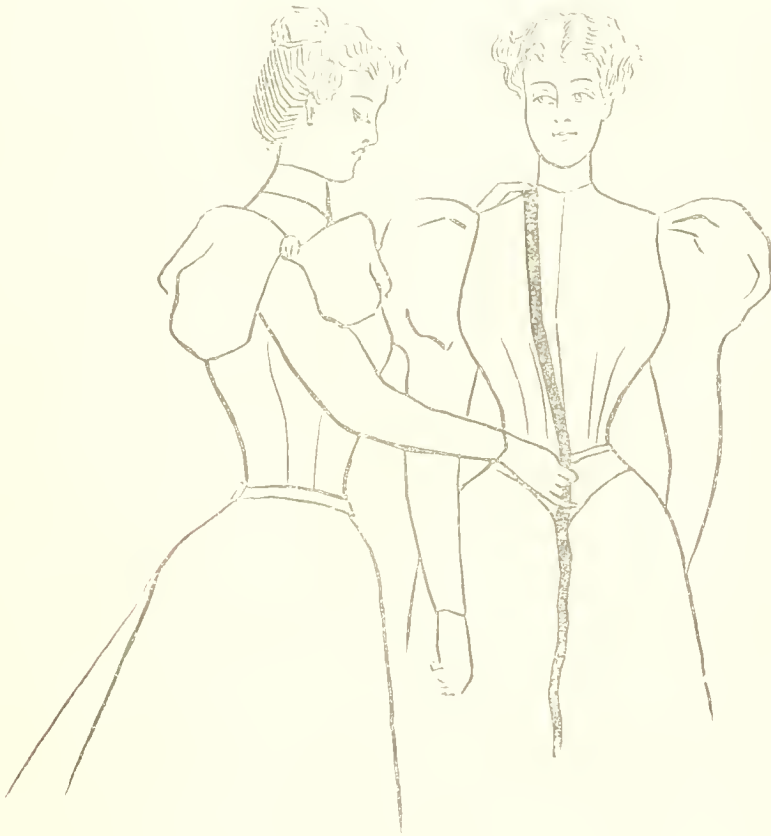
There are a great many different systems taught by dress-cutting schools; but very few good ones. Many schools use charts or drafting machines which, they claim, saves time. These so-called inventions are used to make money on them. Practical dressmakers, as a rule, do without any patented device. They simply use a tape measure, a ruler and pencil, and in this way they do better work than can be done by any drafting instrument.

One of the oldest ways of cutting is to pin on the figure of the customer a lining of cheap muslin and to fit the lining to the figure, but this is not as satisfactory as the modern way of drafting a pattern of the dress on paper and transferring the lines drawn on the goods by a tracing wheel. The paper pattern can be dispensed with, too, by experts.



## DESIGNING AND CUTTING.

If we wish to cut a dress we first make a pattern on paper. This prevents us from spoiling more expensive material. We always begin with the waist. We can make the pattern so accurate that trying on becomes unnecessary. The surest way to do this is to draft the pattern in a square. By measuring the space from the shoulder seam down to the stomach, as in illustration No. 1, we find the length of the square.



It is very important to be very exact in taking this measure. Before going any further we now take this measure, and either write down the number of inches we require, or carry the figure in our memory.

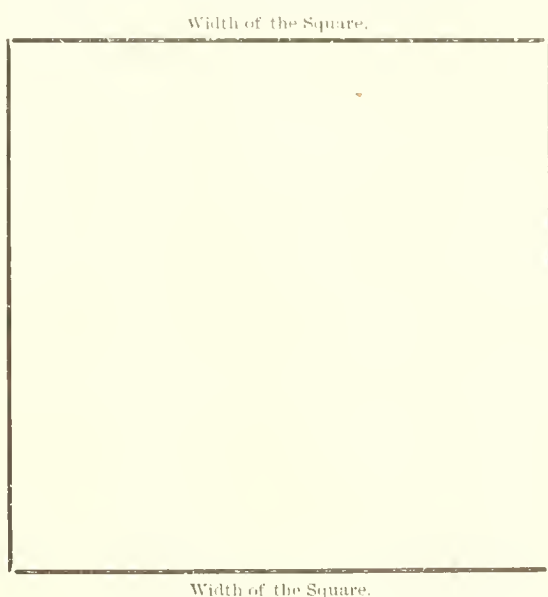
Next we require the measure for the width of the square, which is found by taking the measure all around the bust, close under the arms, allowing about one inch more, so as not to get the waist too tight.

We require only one-half of this whole bust measure for the width of the square, because we only draft a half-pattern, on account of the goods being folded double, and both sides of the front and back of a waist can be cut at the same time. The following illustration shows how the measure for the width of the square is taken:



Having taken this measure, we immediately draft the square. We take a large sheet of cheap paper, either manilla or any other kind we can buy in a stationery store. We first draft the length of the square, con-

sisting of two lines drawn downward from the top of the paper, equal in length to the number of inches we require, according to our measure. We can dispense with the line on the left-hand side by using the edge of the paper instead of the line. The line on the right-hand side is drawn at the proper distance from the edge of the paper or from the left-hand line (if we make use of that line), as determined by the measure taken for the width. The following illustration represents the square we have to draft:



The lines marked width represent the width of the square, which corresponds in length with the number of inches we found by our second measurement. If the second measure, as taken for the width, or rather half of it, as we require, is twenty inches, the right-hand downward line is drawn twenty inches apart from the left-hand line (or the left-hand edge of the paper, if we use that instead of the left-hand line). We next have to draw the top line for the width of the square. We can dispense with this line also by using the top edge of the paper. Next we draw the lower line for the width, which any one can easily do correctly by referring to the above illustration. The length of the lines is determined by the measures we have taken. In this case we will assume that the length is  $18\frac{1}{2}$  and the width  $19\frac{1}{2}$  inches. We now draft the square based upon this measure. Having drawn the square correctly and accurately, we can proceed to take the measures for the waist.

### TAKING MEASURES.

A practical system requires eight measures for the waist, not including the sleeves. They are (1) the front length, (2) chest, (3) back length, (4) back width, (5) waist, (6) hip, (7) side, and (8) the shoulder measure.

Before going any further, commit to memory the names of these measures in their order, so that when taking measures you can quickly write the numbers down, one under another, without the necessity of writing the words "Front length," etc., too.

#### MEASURE OF THE FRONT LENGTH.

Now we learn to measure the front length of the waist. This is from the hollow of the neck, below the chin, down to the centre of the stomach, as in the illustration printed below. We do not take this measure very tight. Whenever we have ascertained a measure, we write the number of inches down. We never take the measure by the waist a lady wears, but we measure the body, so as to avoid the mistakes that may have been made by other dressmakers.



Illustration showing how to take the front measure.

## CHEST.

The second measure we require is the chest measure. Measure from arm to arm, about three inches below the hollow of the neck, placing the tape at the point where the arm joins into the trunk. (See illustration.) This measure should be taken snug.

Care must be taken in this measure not to have it too tight or too loose. The elegance and comfort gained in fitting a figure depends upon ample fullness in front, without creasing, and a close or a tight-fitting back.



Illustration showing how to take the chest measure.

## BACK LENGTH.

Our third measure is the back length. We measure from the neck in the back about the beginning of the spinal column to the joint in the back even with the hips where we bend our backs. (See illustration.)

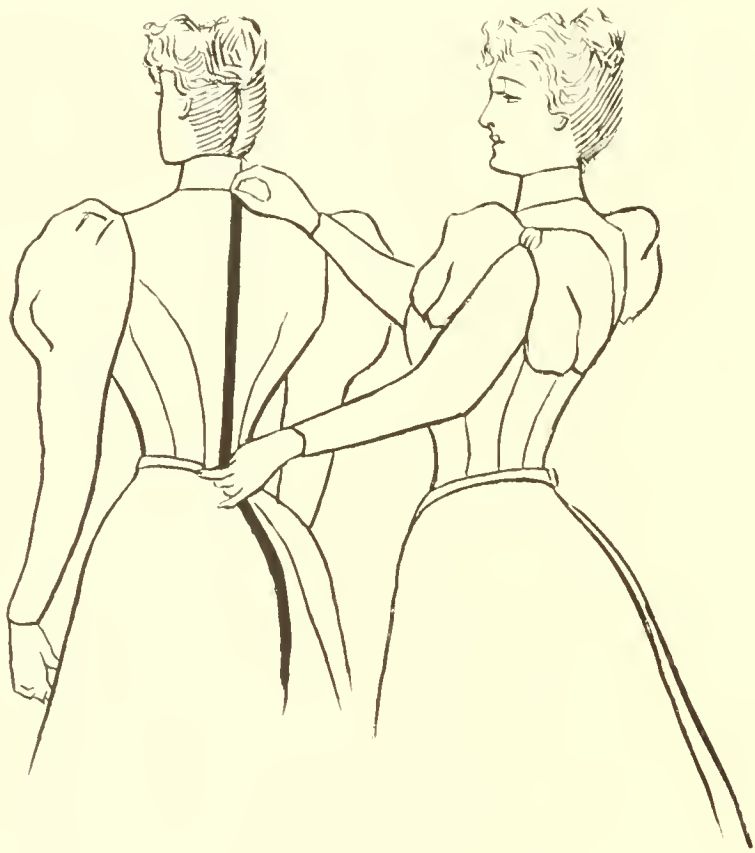


Illustration showing how to measure the back length

## BACK WIDTH.

Our fourth measure is the back width. We measure the space in the back snugly across the shoulders from arm to arm about five inches below the neck. (See illustration.)

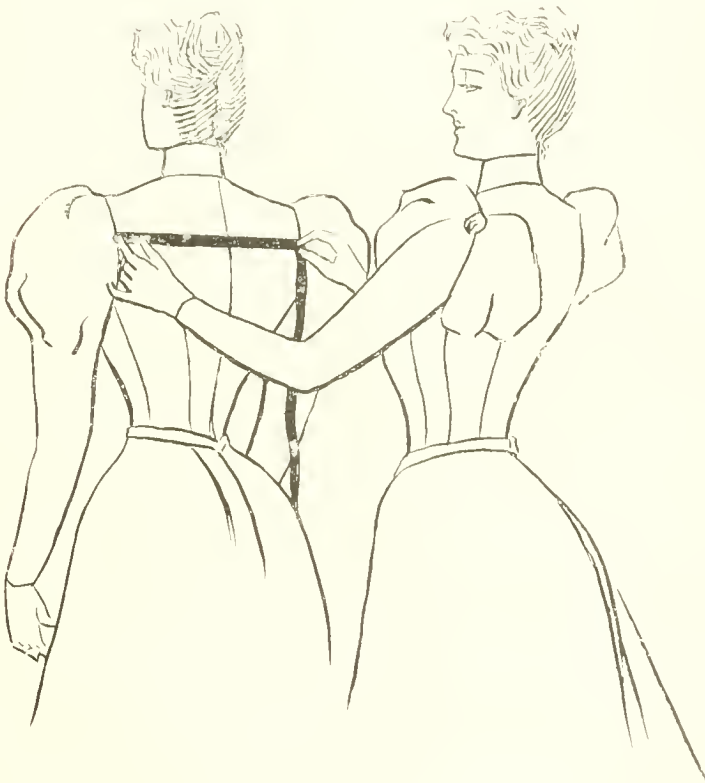


Illustration showing how to take the measure for the back width.

## WAIST.

The fifth measure is the waist. We take the measure all around the waist, rather tightly, as in the following illustration.

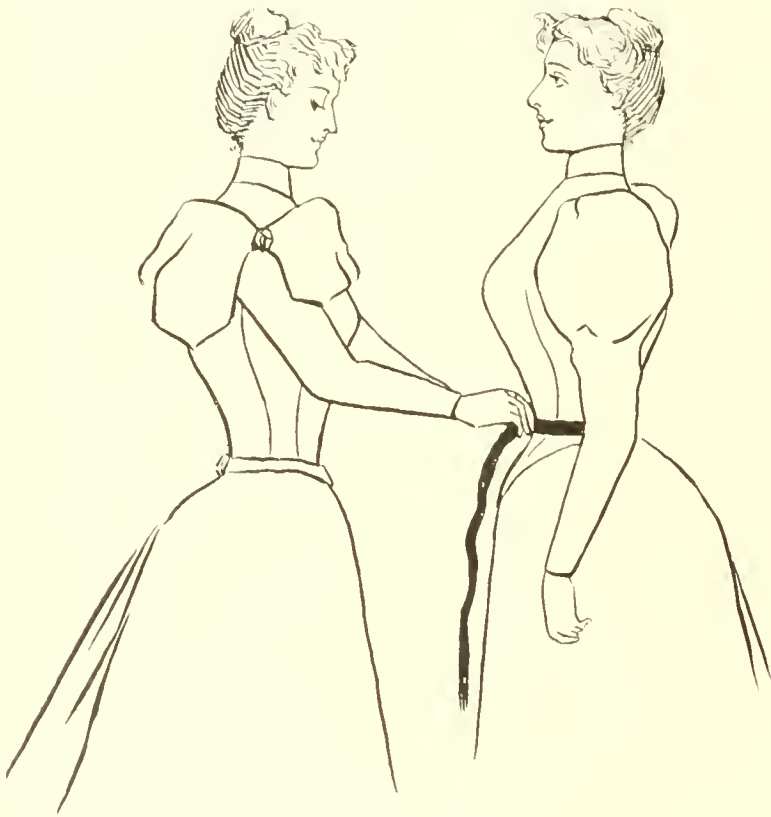


Illustration showing how to take the waist measure.

## HIP.

The sixth measure is the hip. We take this measure snugly all around the hips, about six inches below the waist measure. (See illustration.)

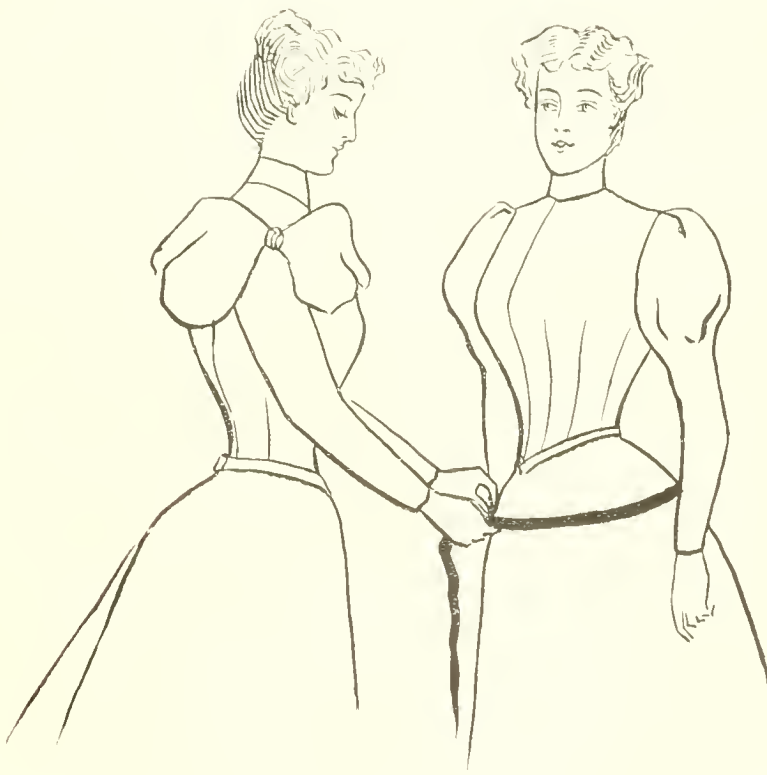


Illustration showing how to take the hip measure.

## SIDE.

Our seventh measure is the side. We measure from under the arm down to the hip, beginning as high under the arm as possible without lifting the arm. Let the arm hang down. (See illustration.)

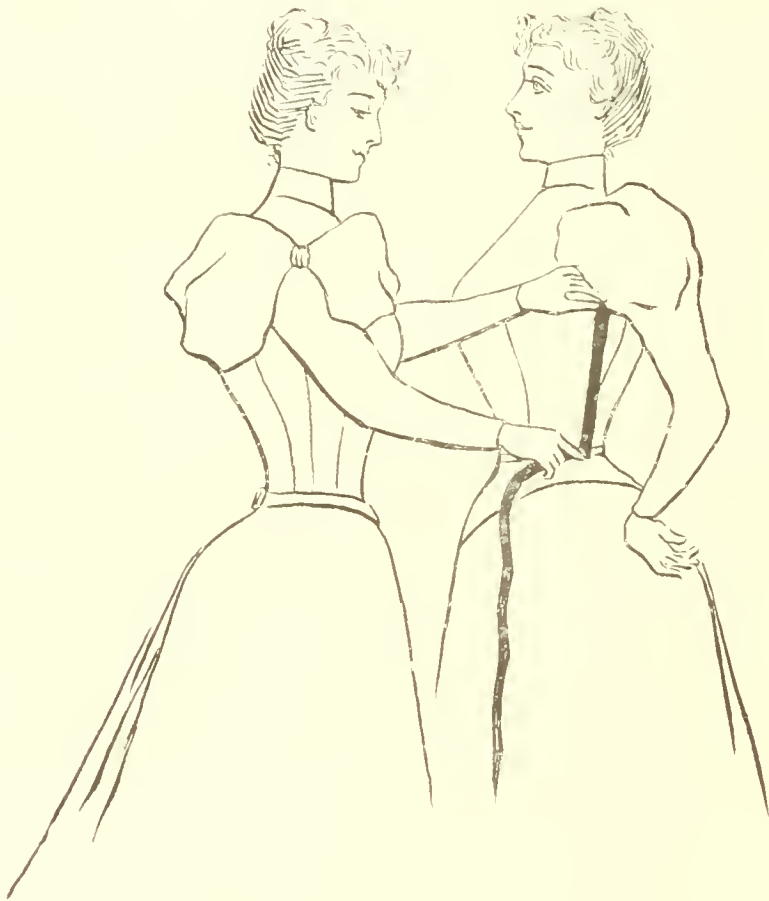


Illustration showing how to take the side measure.

## SHOULDER.

The eighth measure is the shoulder. We measure from the neck to the ball in the shoulder joint. (See illustration.)

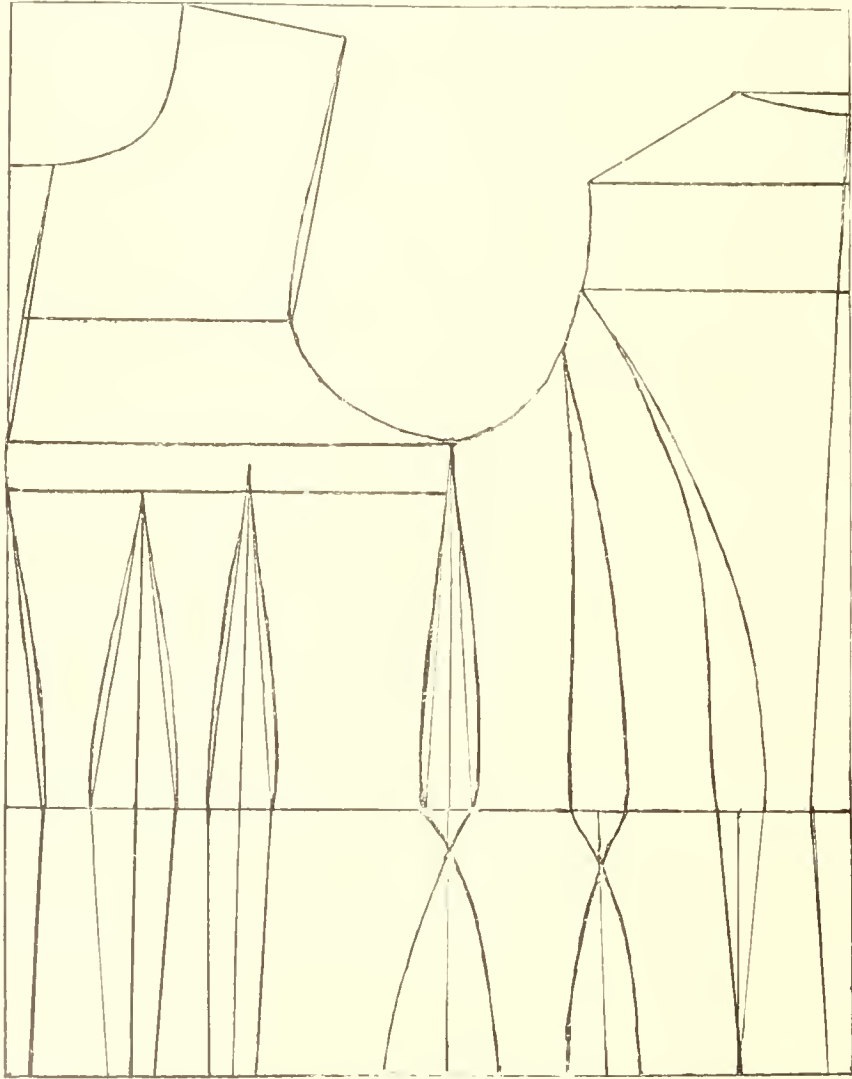


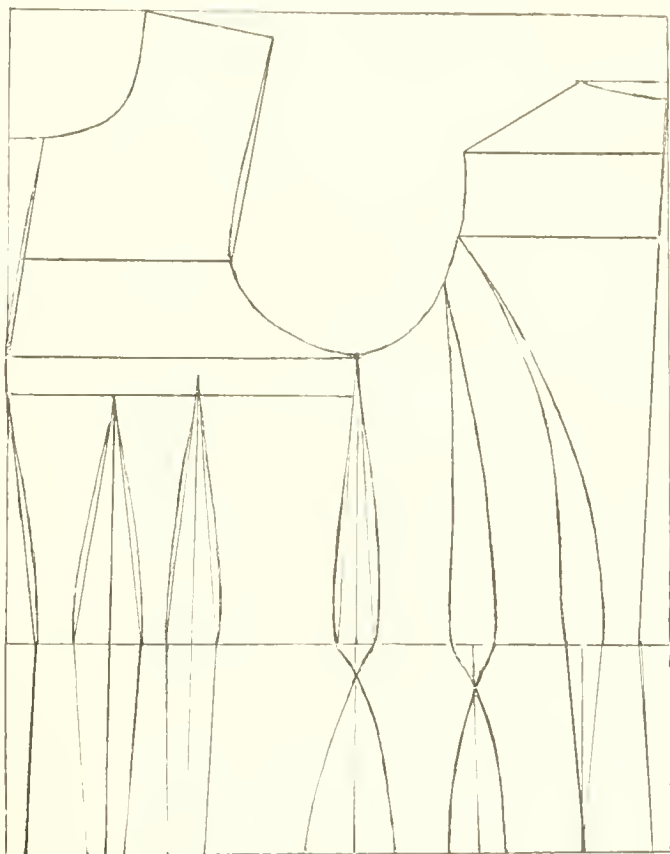
Illustration showing how to take the shoulder measure.

This completes our measure. The number of inches found by taking the different measures must be written down immediately after taking each measure. If our measures have all been taken correctly we can begin to draft the pattern for the waist.

### A COMPLETE WAIST PATTERN, WITH LAP.

Before the different parts of a pattern are studied separately, it will be well to have a view of a complete waist pattern, so as to have in your mind's eye an idea of the final object we have to accomplish. We therefore present on this page a complete diagram representing a scientific system of drafting patterns. A pattern drafted in this manner will produce the most perfectly and elegantly fitting waists. The experienced cutter, who has an inferior system, will readily understand the diagram and be able to make use of the system without special explanations or instructions, but the beginner will require some help, which will be given in the next part of this book.





## DRAFTING THE WAIST.

We are now ready to draft a pattern for our waist. We will base our first pattern, which we draw on paper, for practice on the following measurements:

1. Front length..... $14\frac{1}{2}$  inches
2. Chest .....12 "
3. Back length .....16 "
4. Back width ..... $11\frac{1}{2}$  "
5. Waist ..... $24\frac{1}{2}$  "
6. Hip .....40 "
7. Side (under arm)..... $8\frac{1}{2}$  "
8. Shoulder ..... $3\frac{1}{2}$  "

The first part of our work is to draft the square, which has been explained before. The supposed length of our square is  $18\frac{1}{2}$  inches, and the width is  $16\frac{1}{2}$  inches. If the square has been drawn correctly on a sheet of paper a little larger than the size of the square, as seen on the large sample in the back of the book, we can begin our work.

The paper should be at least six inches longer than the length of the square, and a few inches wider than the width.

We call the lower line of our square the waist line.

We begin by laying the measure at the lower left-hand corner of the square; we measure upward on the left line and make a mark at the number of inches you have taken for the front length of waist, which is  $14\frac{1}{2}$  inches, according to the measure we use. See illustration.

We must be very exact in all measures, making them neither one hair's length more nor less than the measures we have taken.

Now place your measure on the upper left hand corner of the square, measure on upper line, and make a dot four inches from the corner of the square, to indicate the point, where we begin to cut out the neck, as in the following illustration:

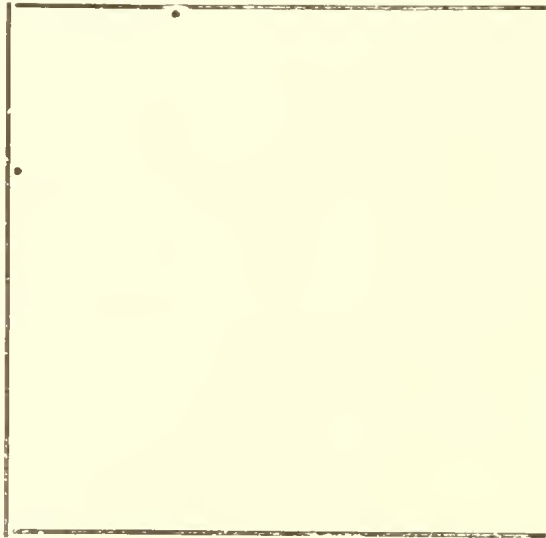


Illustration showing where the marks are made to indicate the front length and the neck points.

In our sample measure the dot is located four inches from the left-hand corner.

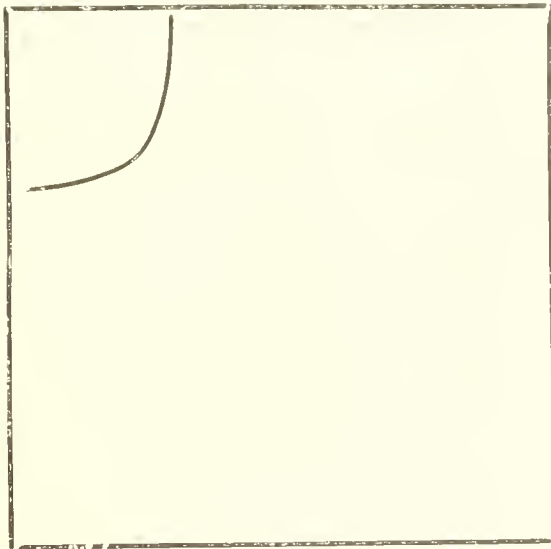
This point, which is the place where the goods are cut for the neck space, is ascertained according to the following rule: If the bust measure

of the person is 38 inches or upward, as in our case, it is four inches from the left-hand corner of the square. The bust measure is the measure we have taken in determining the width of our square, and is twice as large as our square width. For persons above 14 years, who have less than 38 inches bust measure, the point for cutting the neck out is  $3\frac{1}{2}$  inches from the left-hand corner. In most cases, namely, with persons of very regular figure, the point referred to is almost equal to the shoulder, but it is not safe to rely on this, and it is best to follow the rule mentioned.

In patterns for children the shoulder measure is taken as the standard for the size of the neck. In our case the point is four inches from the left-hand corner, because our bust measure is more than 38 inches.

Our next task is to draw a curved line, to show where the goods are to be cut for the neck.

Before we can do this, we draft a one-inch straight line downward from the neck point on the top line, and another straight, vertical line of one inch inside from the first dot made on the left-hand square line, and then we draw a curved line, connecting the two straight lines, as in the next illustration.



Those who have any difficulty in drawing this curved line gracefully and accurately, can make use of a curved ruler, as furnished to the purchasers of this book. When the shapes of all the curved lines required are firmly fixed in the mind of the learner, the curved ruler may be dispensed with.

In the back of this book will be found a model waist, drafted in full size, based on the measurements printed above.

It may be of some assistance to the student to examine this model. As it is loosely fastened, it may be taken out of the book.

All other illustrations in this book are made in miniature form.

The diagrams illustrating the different steps for drafting a plain waist will contain a repetition of the previous steps, so as to show at any time the evolution of the drawing. The student does not repeat them, but completes the entire drawing in the same square.

Our next task is to indicate the shoulder measure on the top line of the square. We do this by measuring on the top line, from the curved line we have drawn for cutting out the neck, to a point as far from it as the length of our shoulder measure, which is  $3\frac{1}{2}$  inches in our sample waist.

We now draft a straight line of one inch downward from this point, and then a slanting line from the neck to the lower point, as in the next illustration.

Having drawn our curved line for cutting out the neck, and a slant line for the shoulder seam, we have to do something to give a proper shape to the front of the waist.

In all well-shaped persons the highest point of the bust is about one inch above the middle of the distance between the neck and the stomach.

To shape the bust properly, we require two auxiliary lines.

We lay the measure at the bottom left-hand corner of the square again, divide the length of waist between neck and stomach, which is the front length measure, in two equal parts, make a dot, and from this point measure upward one inch; make another dot, and draft two straight lines to the centre of the square for the bust lines, as in the next illustration.

Now we make a point one inch inside from the bottom left corner, and from it draft a slanting line up the front to the lower bust line.

We also make a point one inch inside at the neck line, and from it draft a slanting line down the front to the upper bust line, as in the next illustration.

This is now our real front line, from which all measures for the darts must be taken.

We now have to place the side seam. We take half of the bottom square line, beginning with the front line in our case ( $9\frac{1}{4}$  inches), make a point and draft upward from it the side line, as high as our side measure requires, which is  $8\frac{1}{2}$  inches in our measure.

#### ARM HOLE.

Our next task is to draft the arm hole. To do this we need our chest measure, which is 12 inches, and as we draft but half the pattern we take half of the chest measure, that is, 6 inches. We lay the measure on the slanting line drawn lengthwise from neck to upper bust line in the centre, where we make a dot, and draw a straight vertical line, 6 inches long. (See illustration.)

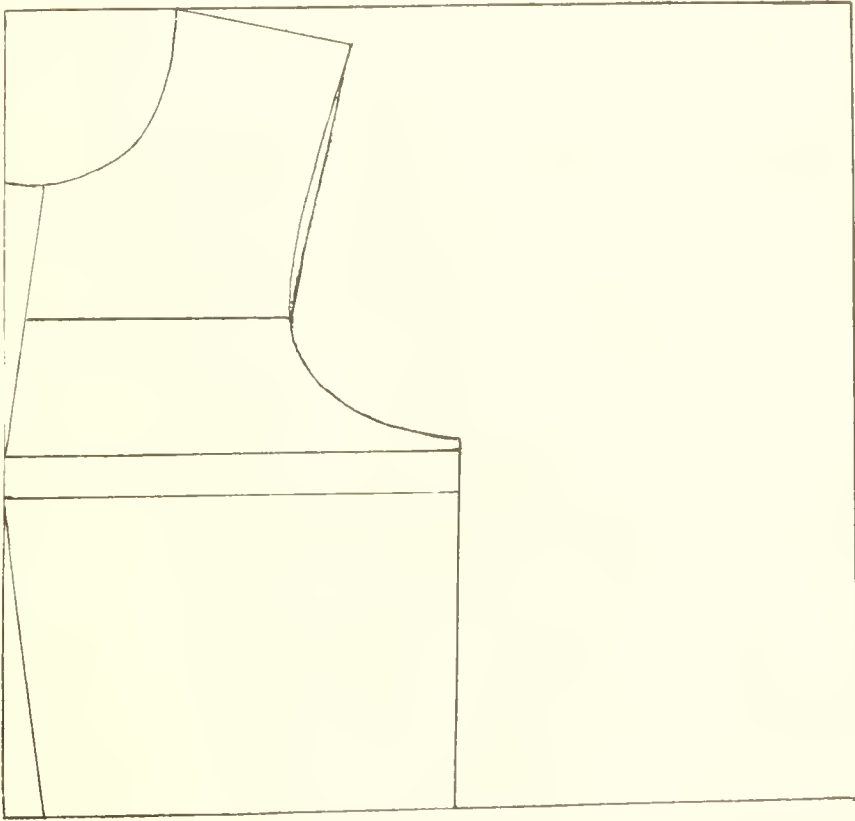
The new line we have drawn indicates the width of the chest and the distance of the arm holes. We now require a curved line for the arm hole.

We now draw a line downward from the shoulder point to the chest line, commence at the top, and curve this line, making the curve about  $\frac{1}{4}$ -inch toward the left. (See illustration.)

We now extend the curved line from the chest point to the upper bust line, and continue the curved line to the upper point of the side line.

This process completes our arm hole.

Our next illustration shows all the steps described above.



## DARTS.

Having completed the arm hole, we have to make the darts.

The new lines in the next illustration show how the dart lines are drawn.

To place them properly we measure from the front line on the waist line three inches, and make three marks, each an inch apart.

The first inch from front line on waist line allows for button holes or hooks, and the other two inches are for the first dart. (Be sure that you do not measure from square line instead of front line. The front line is the slanted line upward, as you will remember.)

Now measure from the front line on the lower bust line and make a dot three inches from the front; then draft a straight line from the middle dot on waist line to this point on bust line. This line is the centre of your dart.

Now draft lines upward from the first and third dots or inch marks, making peaked point at the dot on the bust line, which completes the first dart. (See illustration.)

We now make the second dart.

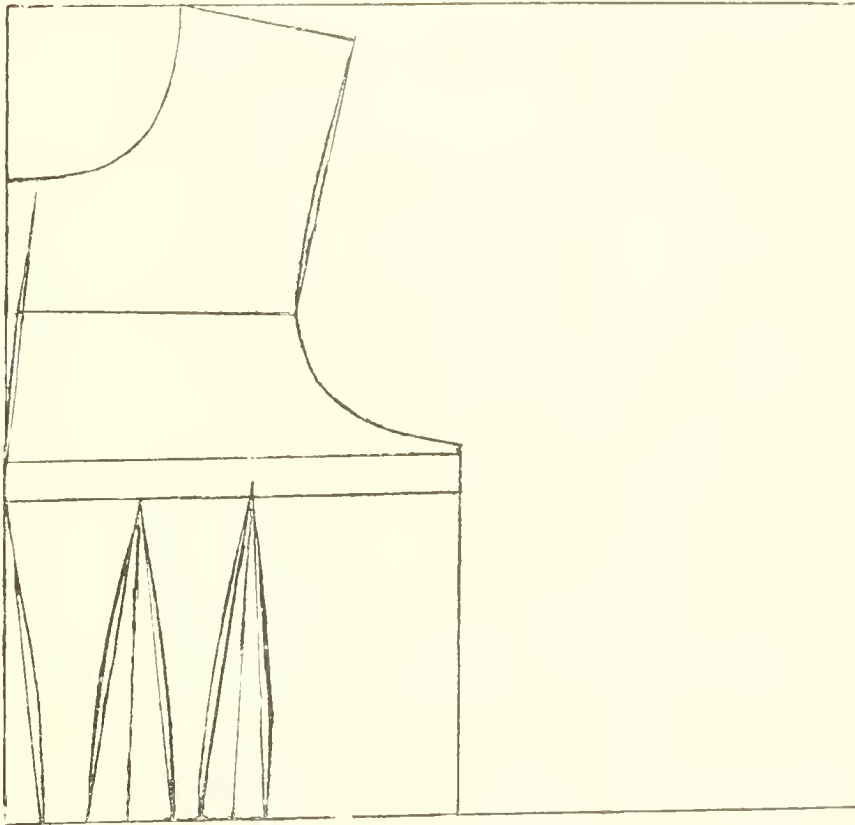
We measure from first dart, three-quarters of an inch, making three dots, each  $3\frac{1}{4}$  inch apart. At the top we measure  $23\frac{1}{4}$  inches from the first dart. Take the ruler and measure from the centre point on the waist line to upper point, but extending it up half way between the two bust lines, and draft this dart in the same manner as the first. (See illustration.)

The straight, slanted lines we have drawn cannot be used, as the darts are always curved, but the straight lines aid us in curving the darts properly.

The straight lines we have drawn are only auxiliary lines, and guide us in curving the darts. We now draw a curved line, commencing one inch below the top to about  $2\frac{1}{2}$  inches above the waist line, making the curve at that point about  $\frac{1}{2}$  inch from the straight dart lines.

Now draw this curved line four times, one on the outside of each slanted straight dart line. Now draw another curved line in the same manner on the inside of the front line; that is, the real, slanted front line—not the front line of the square. (See illustration.)

If you have a curved ruler, its use will greatly assist in drawing the curved lines for the darts.



### BACK.

We have now completed the front part of the waist, and begin to draft the back.

We first put the measure at the right-hand lower corner of the square, measure up to the number of inches of your back length, whatever it may be. In our sample measure it is 16 inches. At that place we make a dot, and  $\frac{1}{2}$  inch above it another dot. From the last dot draw a straight, vertical line of  $2\frac{1}{2}$  inches long inside for the back neck;  $2\frac{1}{2}$  inches is the usual length of the neck line. From the end of this line draw a curved line to the mark you made to indicate the back length. (See illustration.) The curved line is for the neck. In very stout persons the straight line is about  $\frac{1}{2}$  inch longer, and for children  $\frac{1}{2}$  or 1 inch shorter.

We now have to draft a line for our back shoulder seam.

To locate and slant this line correctly we require an auxiliary line, which shows the correct height of the shoulder line.

Now measure  $1\frac{1}{2}$  inches downward from the dot made to indicate the back length, and draw a straight, vertical line, forming a right angle, toward the middle of the square, as in the next illustration.

Now we draft our back shoulder line from the back neck point to the line we have drawn, only  $\frac{1}{4}$  inch longer than the front, because we always stretch the front shoulder in the goods.

See illustration.

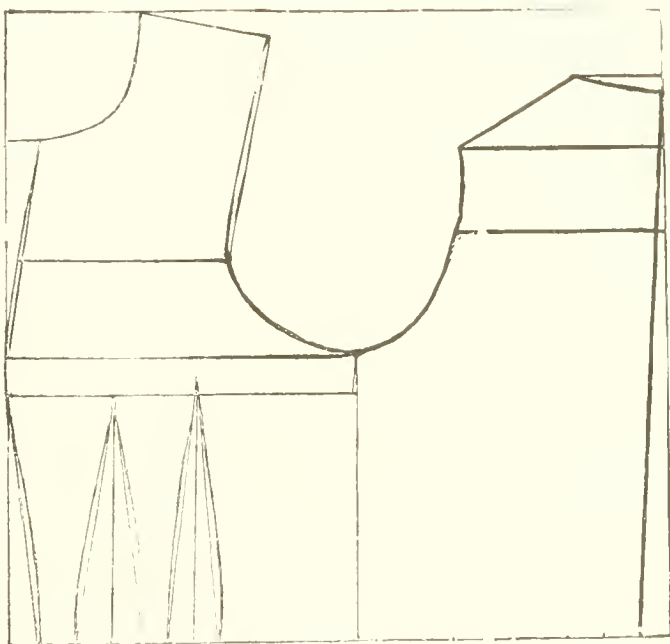
Be sure that this back shoulder line is exactly  $\frac{1}{4}$  inch longer than the front shoulder line, as drawn in the front part of your pattern.

Now we have to draft a line on which we measure our back width, as in illustration. We draw this line parallel with the line we have drawn before, and  $2\frac{1}{2}$  inches below the same, as illustrated. The distance between these two lines is always equal to the length of the line drawn to slant the neck, which is also  $2\frac{1}{2}$  inches.

Our next task is to draw a line for the centre seam in the back of the waist, as illustrated in our next diagram. We draw a line upward, beginning on the bottom line of the square, one inch from the right-hand corner up to the neck point, which is the point indicating the back length, as stated before. (See illustration.)

### ARM HOLE.

Now we have to draw a line for the back of the arm hole, as in our next illustration. The distance of the arm hole from the line indicating the centre seam is equal to one-half of our back width. In our sample measure the back width is  $11\frac{1}{2}$  inches, and one half of that is  $5\frac{3}{4}$  inches. Now measure on the lower line, which we have just drawn, and make a mark  $5\frac{1}{2}$  inches from the line indicating the centre seam in the back. Now draw a curved line from the "shoulder point" down to the mark you just made on the lower line. From that point we now make a round arm line to the front arm line. The arm hole must be round like a ball. If it is not round like a ball you have made a mistake. Our next illustration shows how the arm hole should be.



After completing the arm hole, we have to draw a curved line to complete the back, and one for the side piece. The centre back seam line is already finished, and is the straight, slanted line we have drawn. The curved line on the right-hand side in our next illustration shows the first line we require. A curved ruler is a great help in drawing this line, but a little skill and practice will enable any one to do without it, although, of course, it is better to have a curved ruler if it can be procured. The curved line must be drawn gracefully from the lower point of the arm hole to the bottom line of the square. At the bottom square line it must be one inch from the line showing the centre seam, and two inches above the distance from that line must be  $1\frac{1}{4}$  inch more.

We now draw the line with the aid of the curved ruler, which will make it very easy, but if we have no curved ruler we use the tape measure instead.

Now lay the measure on the lower point of arm hole; put the third finger of left hand on the measure at this point, the second below it and first finger below the second, holding in this manner your tape at an even round or curved position, and make three or more dots on this curve, to indicate, approximately, where the line should be. This will make the line about half of its full length.

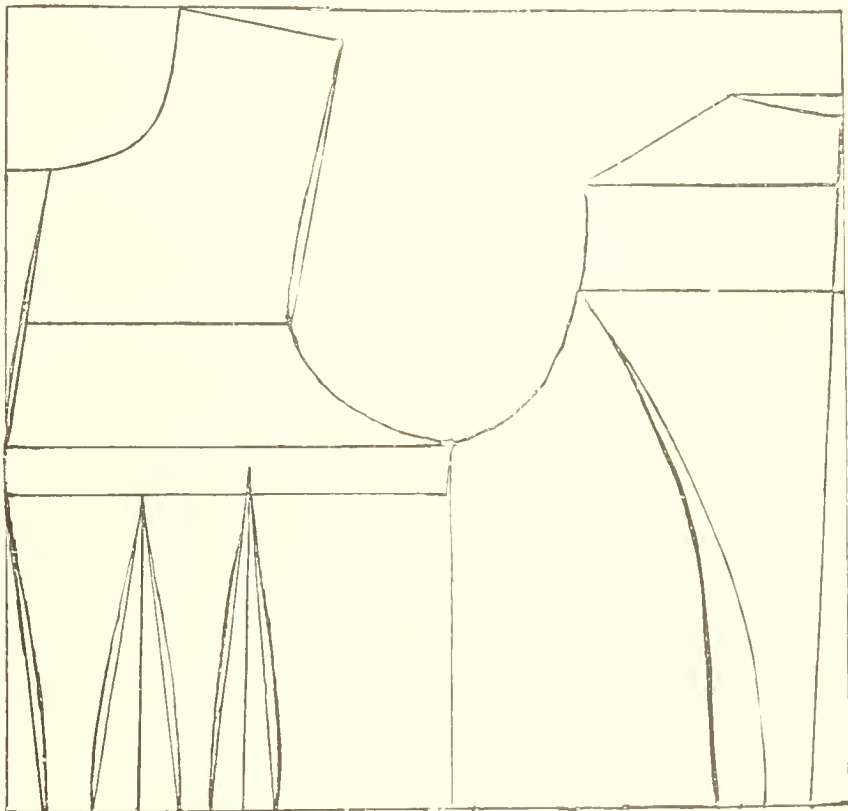
To complete the line, move the measure down to the bottom line, hold it with the third finger of left hand, and with the right hand hold the tape on the upper point that we have made from the waist line. Hold tape at this point, and with first and second fingers of left hand round the tape to an even curve and make a dot at each finger.

Now draft your line from your arm-hole point to your waist line, in a round, evenly curved and slanted line to the bottom; not necessarily to meet each dot, but very near them, because these dots serve as a guide for the curved line. (See illustration.)

After completing this line we must draw the first line for the first side piece. In some waists we have two side pieces, and in others we use three. In our sample waist we use only two. A well-built lady's measure around the waist is from 12 to 15 inches less than her bust measure. There is a surplus in the goods, therefore, in that part around the waist, and this surplus is disposed of by cutting it out, just in the same proportion as the person's measure requires. We accomplish this by drawing another line in next illustration, separating from the second back seam, generally  $2\frac{1}{2}$  inches below the arm-hole line, keeping the two lines close together at the beginning, then slanting downward to the waist line, making them about  $1\frac{1}{2}$  inch apart near the end, as in illustration.

The space between the two lines, which is the surplus in the goods, will be cut out.

In dresses for ladies, whose waist is not smaller than the bust measure, there is no surplus in the goods, and there is nothing to be taken out.



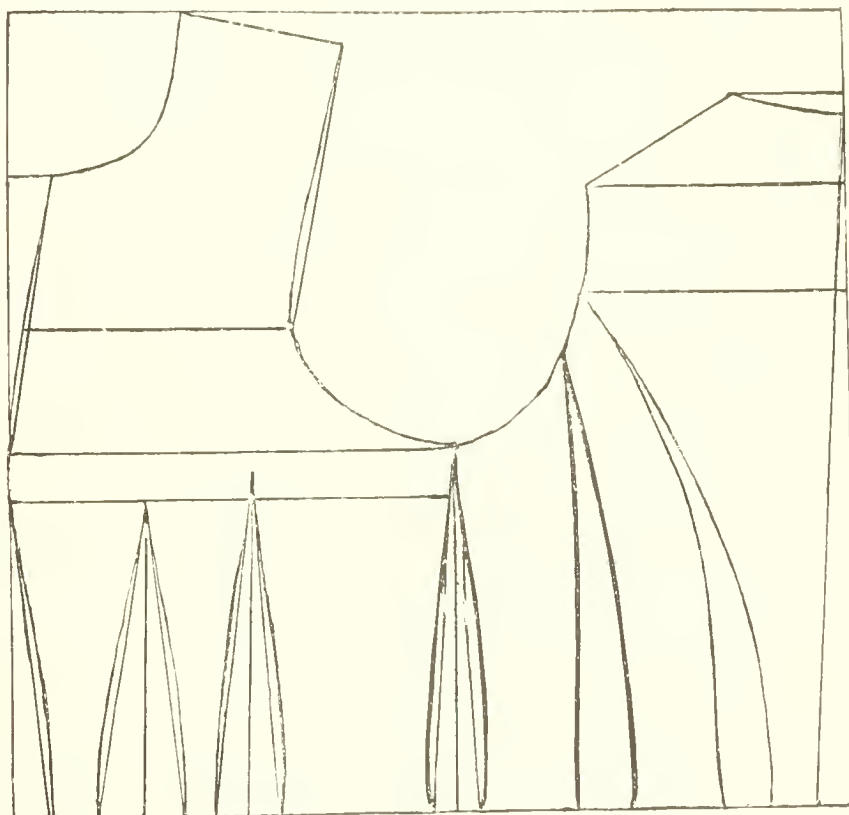
As we use two side pieces in each side in the back of the waist, we have to divide the waist line space between the last line drawn and the under arm seam (which is represented by the line in the centre) into two equal parts, so as to produce two pieces of equal width. If three side pieces are used, the space mentioned must be divided into three equal parts. In our sample measure we use only two side pieces. Before we can divide the space on the waist line, we must see how the person's actual waist measure agrees with our waist measure on the pattern, after taking up a part in darts and seams. If this measure is exactly the same, the space will be divided exactly in the centre and only one line for the seam will be needed; but if the actual waist measure is less, then the surplus in the pattern must be taken out in the centre, half of it on each side of the exact centre point of the line. In our sample waist the real waist measure is  $24\frac{1}{2}$  inches, of which we require only one-half, which is  $12\frac{1}{4}$  inches. Now you place your measure at the waist line on your real front length line, and measure the space from there to the real back line, leaving out the spaces taken up for darts and seams. Thus we find that we have about  $1\frac{1}{4}$  inches too much. Now make a dot  $\frac{1}{2}$  inch from the under-arm line on the left-hand side, or  $\frac{1}{4}$  inch on each side of that line, which leaves us only  $\frac{3}{4}$  inch too much. As said before, one-half of this space, i. e.,  $\frac{3}{8}$  inch, is taken out on each side of the actual centre point mentioned. Now we divide this space, making two dots in the middle,  $\frac{3}{4}$  inch apart.

In a like manner we divide the space at arm hole, making the under-arm piece  $\frac{1}{2}$  inch wider at the arm hole than the back side piece. Draw from this arm-hole point a slanted, evenly curved line to point nearest back side seam on waist line. From same point on arm hole draw second line, also evenly curved and slanted to second point. (See illustration.)

A curved ruler should be used.

Except at the arm hole, the two side pieces should be of equal width, and the lines making the seams must be started from a sharp peak at the arm hole evenly to the waist line.

We now draw a peaked, slanted line from the arm-hole line, beginning at the top of the side seam, to the only point you have left on waist line.  $\frac{1}{2}$  inch from the side-seam line, as in the following illustration.

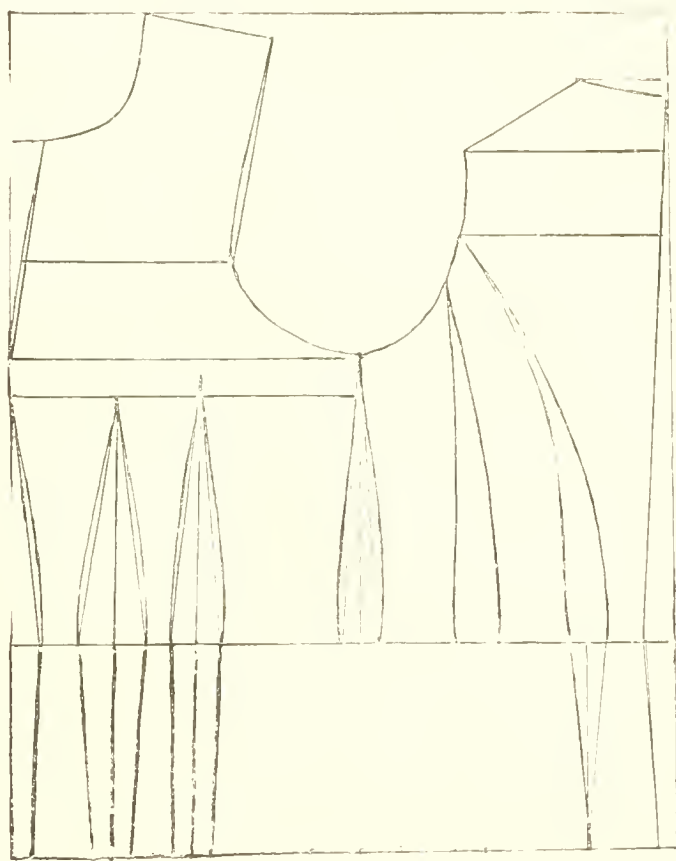


We have now completed the pattern to the waist line, and have finished all that is necessary for cutting a short waist, not to cover any part of the hips. But as some waists are longer and must be made to partly cover the waist, we must lengthen our pattern accordingly. For this purpose we always extend the square six inches below the waist line, as in our next illustration. Then we lengthen our darts six inches, extending them to the new bottom line.

As the hip measure is larger than the waist measure, we must widen the waist below the hip, and take out less material in the darts below than we do at the waist line. We now begin to draw the extended lines downward, as in the next illustration, beginning with the front line. The distance of the front line from the front or outside square line is one inch at the waist line, but at the new bottom line it must be only  $\frac{3}{4}$  inch from the front line. Next, we extend our back line in the same manner, making the distance from the square line  $\frac{1}{4}$  inch less at the bottom line than at the waist line. The same principle is carried out in extending the darts. We first lengthen the centre line and extend it horizontally down to the bottom line. Then we extend the two outside lines of the darts. At the waist line the first dart lines are one inch each from the centre line, but at the bottom line they must be only  $\frac{1}{4}$  inch less from the centre line, which makes the distance only  $\frac{3}{4}$  inch. Now we extend the second dart lines. At the waist line they are only  $\frac{3}{4}$  inch apart from the centre line, and at the bottom line they must again be  $\frac{1}{4}$  inch less apart; that is, only  $\frac{1}{2}$  inch.

Having extended the darts, we take up the back. We first draw a straight line downward to the bottom line, beginning at the waist line in the centre, between last two lines, the back line and the first side seam line, then we draw two slanted lines, forming peaked point, extending the two lines above the waist line to the bottom line, as in illustration.

(See illustration on next page.)

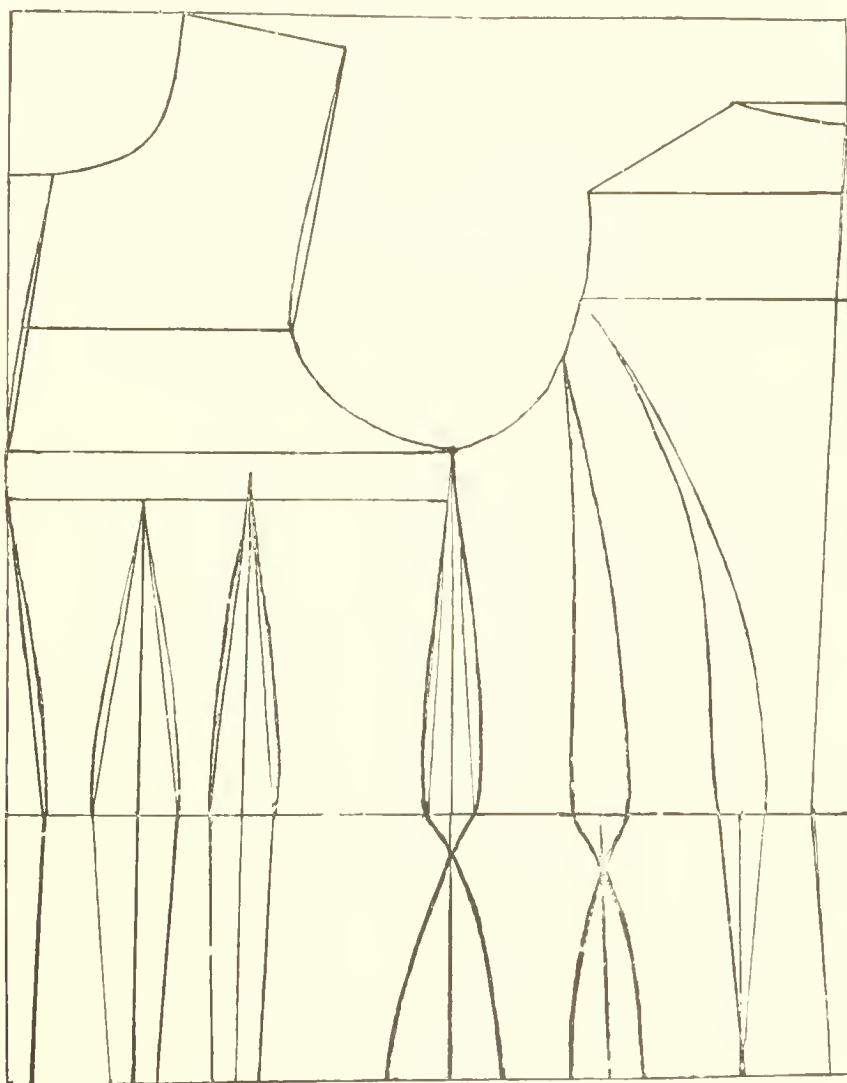


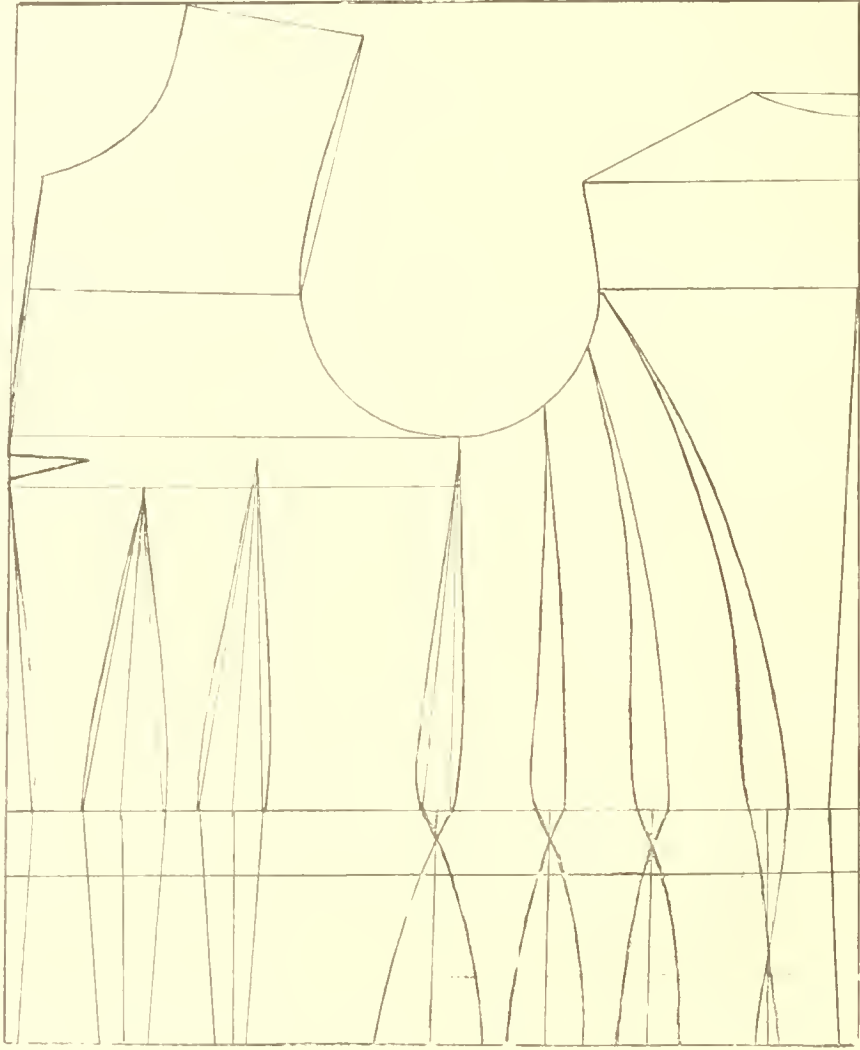
We now come to the last lines, which complete the hips, and are very difficult. They are an extension of the under-arm piece and side piece lines down to the bottom, and must be far apart at the bottom, because the hip measure is much larger than the waist measure; but before we can draw these we must draw straight auxiliary lines, beginning in the centre, at the waist line, one between the two lines indicating the under-arm seam, and the other between the two, indicating the side seam, straight down to the bottom line, as seen in the illustration. We now make two dots on the bottom line, one on each side of the first auxiliary line,  $1\frac{1}{4}$  inches from it; then we make two more dots, one on each side of the next auxiliary line, but one inch from it. Since the hip measure is larger than the waist measure, we must see that we provide for the extra width required in accordance with our hip measure. The largest part of the extra width is always required on the side, and only a very small part is needed in the front, where we have already provided for it in the darts, by making them smaller at the bottom than on the waist line.

Before we can draw the extended lines for the side pieces we must find the space needed for them. The hip measure we took for our sample waist was 40 inches. Of this we require only one-half, which is 20 inches. We have lost a part of the width in the pattern, or rather, the goods, by taking it up in darts, and as we must have the full width of 40 (or rather 20) inches for our hip we must make up in the width of the side pieces for the space we lost by the darts. We now measure on the bottom line to get our 20 inches, and begin from the front line. We first measure to the first dart line, and find the space in our sample waist to be about  $1\frac{1}{2}$  inches. The next space, which is taken up by the first dart, must not be measured, but we measure the next space between the two darts, and add its width, which is about  $1\frac{1}{4}$  inches, to the first space. The space of the second dart is again omitted. We then measure from the last line of the second dart to the dot we made on the right-hand side of the first auxiliary line, adding the space again to the total of the previous space, and so on. From there we go backward to the dot on the left-hand side of the first auxiliary line and measure to the dot made on the right-hand side of the second auxiliary line; from there we go again back to the point on the left-hand side of the second auxiliary line, from which point we measure to the back line. If the total space measured in this manner is equal to half of the hip measure, which is 20 inches for our waist, we can begin to draw the extended side-piece lines to the dots we made previously. If, however, we need more to get our full measure, we must remove the dots a little more toward the outside, so as to get the exact hip measure; or, if we have too much, we must remove the dots a little inside, closer to the auxiliary line. Now you draw the extended lines to cross each other, as in our next illustration. The lines cross each other about  $\frac{1}{2}$  inch below the waist line, but, if a person is very slender, the crossing point is made a little lower.

Our next illustration concludes the ordinary plain waist, and all different sizes may be made in the same manner. Before practicing different styles, a number of plain waists, based upon different measurements, should be drafted.

After finishing the pattern based upon the measurement in this book, the next pattern should be made for a person whose measure can be taken and who can try on the waist, when ready, to see if it fits correctly.





WAIST WITH THREE SIDE PIECES.

The above illustration represents a waist with three side pieces, which is made in the same manner as the previous waist. The only difference is that the space between front and back is divided into three equal pieces instead of two, and there are three hip lines instead of two, also. These waists entail a little more labor, but are likely to look better. The straight line below the waist line shows how the lap may be shortened, by cutting off the pattern where the line is drawn. By moving this line upward or downward we can regulate the length of the lap accordingly.

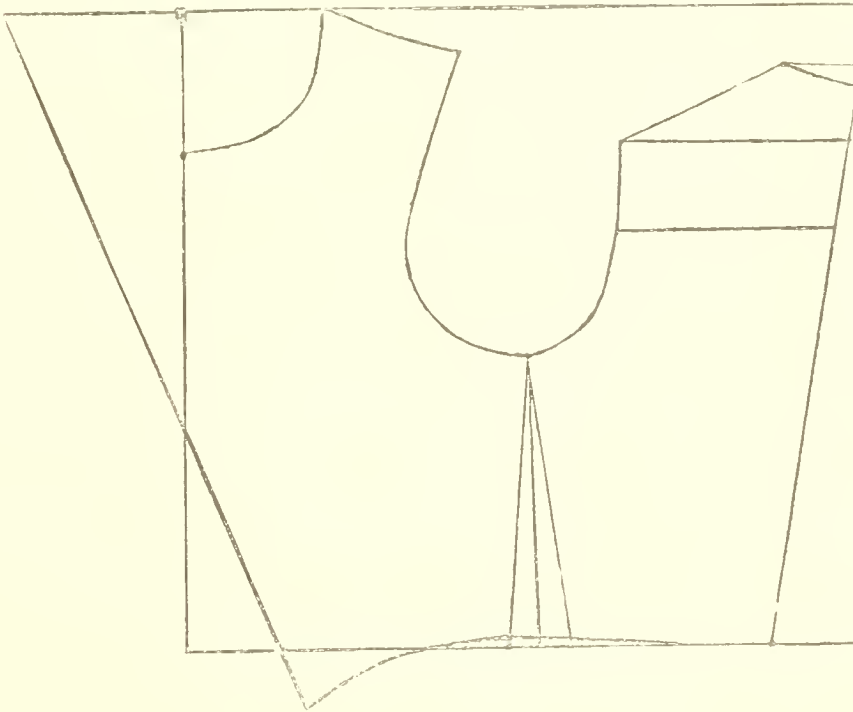
### ETON JACKETS

The Eton Jacket differs from the plain waist mainly in having neither darts nor side pieces.

To make an Eton jacket, we draw a square, the same as in a plain waist, leaving at least six inches margin on the left hand side of the paper. The front length, neck, shoulder, armhole, back, and side seams are also made in the same manner as in the plain waist.

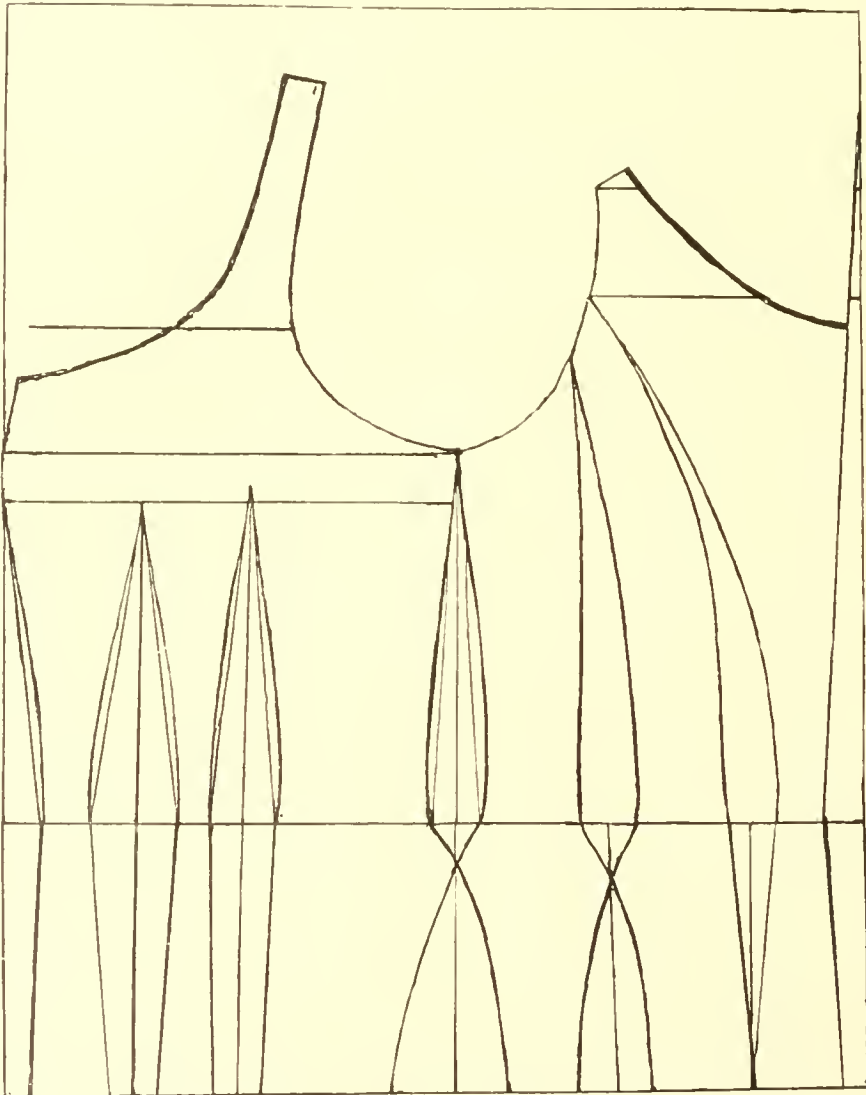
After that, measure at the bottom square line, make marks  $1\frac{1}{2}$  inches each side of the side line, and draw two slanted lines to form peaked point on the armhole line, as in illustration. Then divide the waist measure so as to have one inch more for the front than for the back, which gives us in our measure  $5\frac{3}{4}$  inches for the back and  $6\frac{3}{4}$  inches for the front; then measure  $5\frac{3}{4}$  inches on the waist line for the back, making a mark there, and draw a slanted line upward to the neck point.

After thus completing the back line, measure  $6\frac{3}{4}$  inches on the waist line in the other direction for the front, making a mark there; extend the top square line six inches toward the left hand side, and from the end of that line draw a slanted line downward to the mark on the waist line and about  $1\frac{1}{2}$  to 2 inches further, and then draw a curved line, as in illustration.



## LOW-NECK WAIST.

A low-neck waist is made almost like the ordinary waist, differing only in the neck, which is cut out as low in front and back as desired.



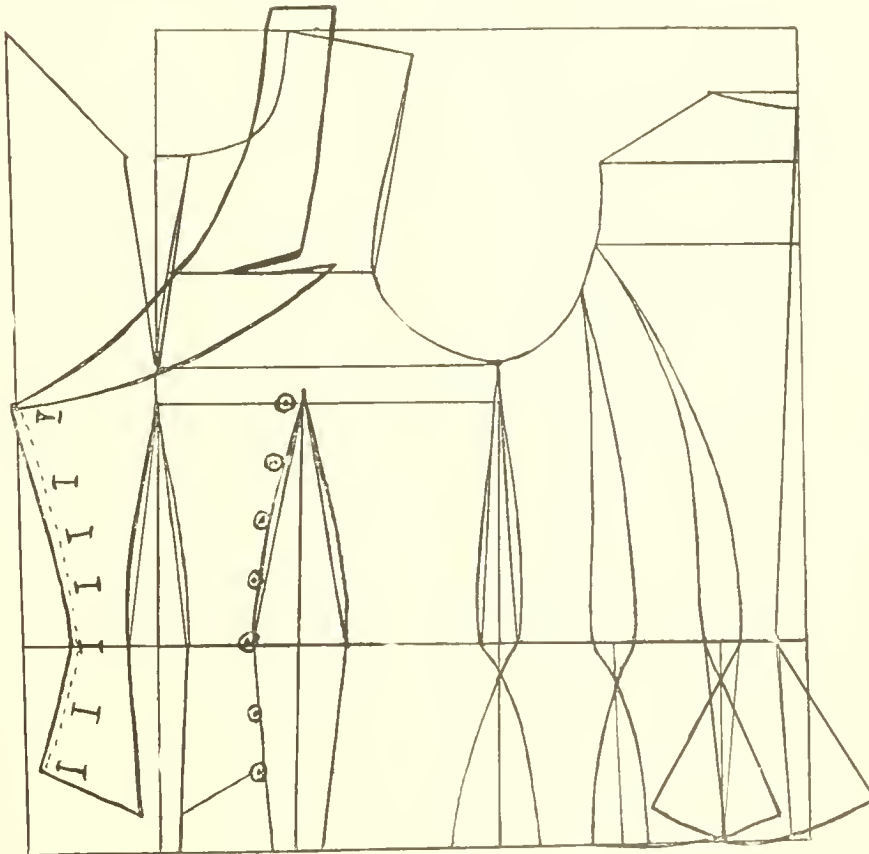
## ENGLISH WAIST.

Allow 6 inches margin on each side. Draft your waist line like the plain waist, except the back and the darts. Take for the back piece on the waist line, 1 1/4 inches instead of 1 inch.

Instead of making two darts, we make one as large as the two in the other waist. The dart is placed 1 3/4 inches from the front (on the waist line) instead of 1 inch, and on the top it is about 1-2 inch before the centre.

If you want the plain lap, make it as in the plain waist, but if you want to have ripples in the back, enlarge your back and side pieces on the bottom line about 3 inches, or as much as is desired, slanting it into the waist line, as the illustration shows.

If you want to have lapels, draw a slanted line upward from the lower bust line, thus extending the lower end of the front line, as in illustration.



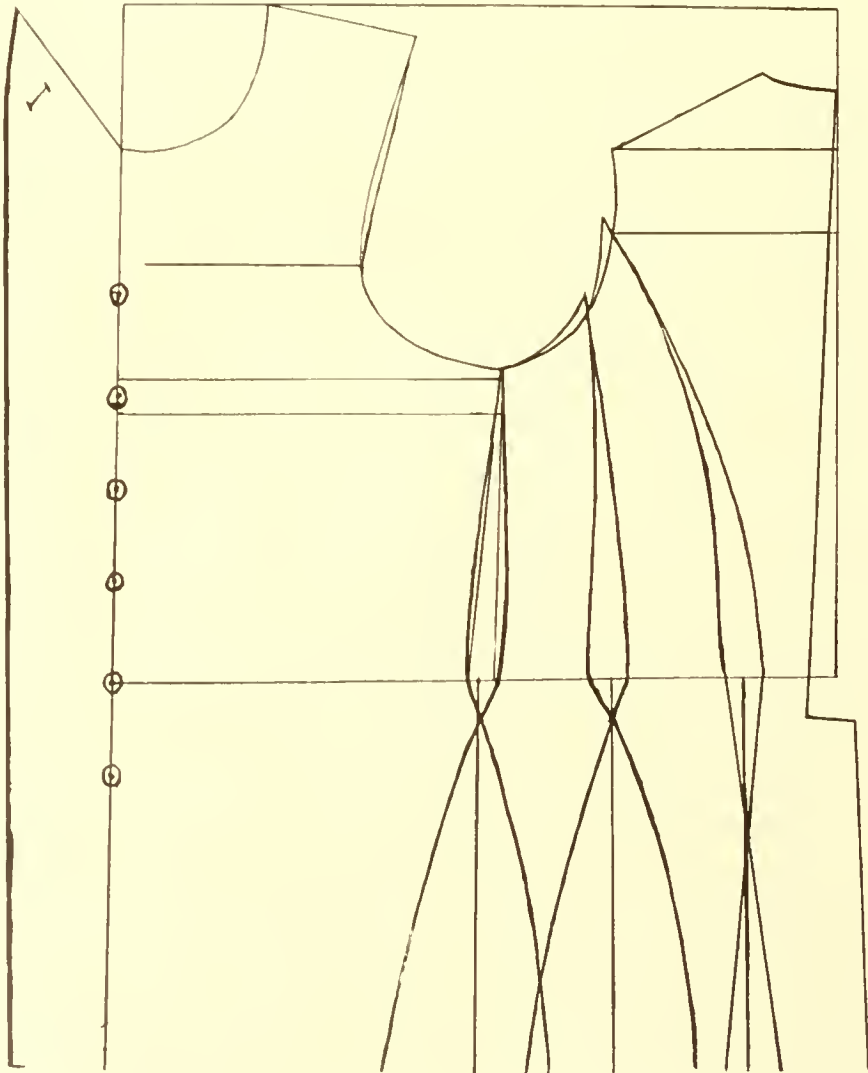
### COAT WITH LOOSE FRONT.

As a coat is larger than a waist, because it has to go over the waist, we must make the square in which it is drawn about one inch wider than for the plain waist.

Draw your waist as always, only make no darts, and leave the back piece one-half inch wider on the waist line than in the plain waist.

We must have six inches margin on the left-hand side of the square.

Make the lap as always, regulating length according to your coat, with loose front desire, then draw a straight line upward from the bottom line as high as the top line, about six inches from the front line, and then draw a slanted line from the neck point to the top of the long line.

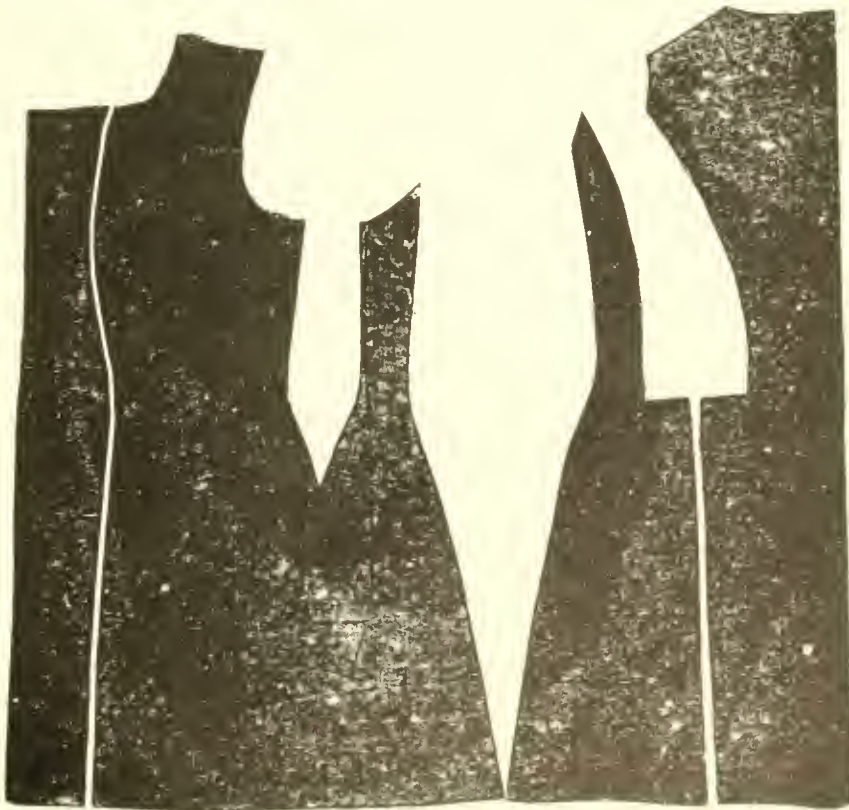


### THE WRAPPER.

In taking the measure for it, we take the front length of waist and the skirt together, placing the tape first at the hollow of the neck, and measure to the stomach, and from there measure to the front of the foot, and do the same in the back. Then we draft a pattern for the plain waist, with two side pieces, and 6 inches lap, and cut it out as if you want to make a waist. Then place the front and under-arm seam together, taking care to have the waist lines meet. Now measure from the hollow of the neck for the whole length needed, and cut the goods straight. Now cut around your pattern, allowing the seams, and slant your skirt on the side piece. (If you want a loose front, allow as much as desired for fullness.)

Now we come to the back. Fold the width of the goods double, and place the pattern of waist back on the goods, so as to have the arm hole from one to two inches from the selvedge. Now measure your whole length from the collar bone to the bottom, and cut the goods. Then cut around your pattern, cutting first neck, shoulder, arm hole and round back seam to one inch below the waist, and then in a right angle through the selvedge. This is a back with wateau pleat. If you want to have a tight-fitting back, cut your goods so as to leave the seam in the centre.

As the side pieces are cut separately, take the edge of the goods and place it even on the bottom, right on the edge of the back piece, which you cut before, and as you allowed 6 inches for the fold on the back piece one inch below the waist, you do the same on the side piece; then cut the goods like pattern, allowing the seams, and slant the skirt as in illustration.



### BASTING AND TRYING ON THE WAIST.

After the waist pattern has been drafted, the next thing to do is cutting out, basting and trying on.

If all the work has been done correctly, if the measures have been taken properly and the drafting and basting done accurately, the waist will fit perfectly, and trying on would not be necessary, but, as most people are liable to make mistakes in the beginning, it is safer to try on before sewing.

In cutting out, follow the pencil lines closely.

First pin a piece of paper under the pattern, trace the front first, every line accurately, take the pins out, and then cut out the front. In the same manner, cut all other pieces out separately.

After cutting out all the pieces we baste them together, beginning with the back seam, commencing on the waist line.

This must be in all other pieces in order to have the waist line meet, and form a straight line, the same as in the pattern.

After the back seam is finished, baste all the other seams in the back, as they follow in the drawing, sewing upward from the waist line; then take the darts in the front, beginning at the top, and then complete the waist by basting the front and back together on the underarm seam.

If you want to make a French Bias Dart, enlarge your second dart 2 1 2 inches.



Illustration showing waist ready for basting.

## SLEEVES.

To complete a waist, we must have sleeves. We first make a plain, tight-fitting sleeve, which is the foundation of all others.

We use the following measures: Size of hand, inside arm length, from the arm pit to elbow, and from there to the wrist, outside arm length, and measure around the arm, near the shoulder.

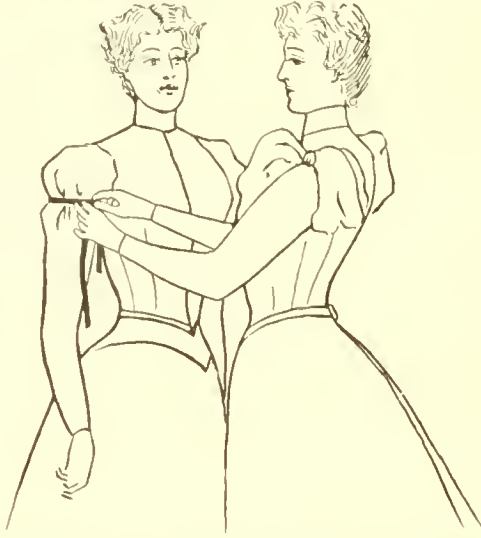
Our first measure is the size of the hand. We measure around the largest part of the hand, near the knuckles, so as to have the sleeve large enough to allow the hand to pass through. See illustration.



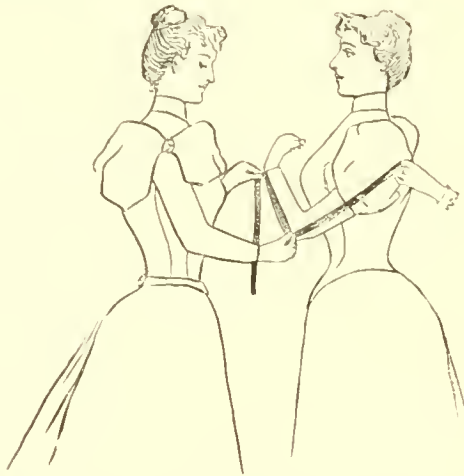
Then we measure the inside arm length. Place the end of the tape near the arm pit, measure down the elbow, mark the number of inches at that, and from there to the wrist, writing down the number of inches to there, also.



The next thing we do is to measure all around the arm, about three inches below the shoulder. Place the tape near armpit and measure all around the arm, allowing two inches more.



The next measure is the outside arm length. Place the tape on the outside of the armhole, measure to elbow, writing down the inches, and measure from elbow to the wrist.



The measures should be written on the sheet of paper used for drafting in some place where they will not interfere with the drawing.

Now, we commence to draft the sleeve, beginning with the hand.

Now take a sheet of paper, a little longer than the sleeve will be.

Draw a long, vertical line from left to right-hand side, and from the end of that line draw a straight line upward, forming right angle, almost to the edge of the paper.

We are now ready to draft the sleeve.

We will suppose our sample sleeve to be as follows: 8 inches for size of hand; 15 inches around the arm, near shoulder; inside length, from arm pit to elbow, 9 inches; from elbow to wrist, inside,  $7\frac{1}{2}$  inches, making a total of  $16\frac{1}{2}$  inches; outside length from shoulder joint to the elbow, 14 inches; outside, from elbow to wrist, 10 inches, making a total of 24 inches.

As a sleeve consists of two parts, the upper part and under or lower part, which are sewed together, we divide the hand width measure and arm width measure accordingly. The upper part requires nearly two-thirds of the full measure, and the lower part a little more than one-third, the two parts thus composing the full measure.

Our hand width measure is 8 inches. We divide this for the upper and under part, taking about 5 inches for the upper part and 3 inches for the under part.

The inside arm length is shorter than the outside length.

We therefore place the measure at the right-hand end of the lower line (where it meets the horizontal line); measure two inches on that line and make a mark. From this mark draw a slanted line for the upper part of the sleeve, as long as required by our measure, which is 5 inches, to meet the horizontal line, as in the next illustration.

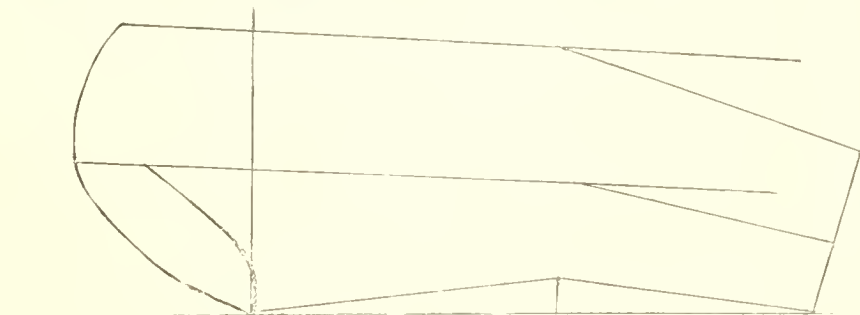
This line is for the upper part of sleeve on the hand.

Now, we indicate the under part of the sleeve on the same line. The under part of the sleeve in our measure is 3 inches. We therefore make a mark on the slanted line 3 inches from the bottom line.

Our complete inside arm length is 16 inches in our measure. We now place the measure on the lower line, where the slanted line starts, and measure 16 inches in the left-hand direction and make a mark.

From this mark draw a long horizontal line upward, forming a right angle; then measure backward on the lower line, make a mark 9 inches from the last upward line, to indicate the elbow point. From this mark draw a short horizontal line of  $1\frac{1}{2}$  inches upward, then draw a slanted line from long upward line on the left-hand side to the top of the short line in the centre, and from there again to the end of slanted line on the right-hand side.

These two slanted lines must be curved in a manner similar to the darts in the waist, making the curved lines about one-quarter inch from the straight lines in the centre. (See the next illustration.)



This completes our inside line for both the upper and lower part.

Next we must divide the upper width of the sleeve, which is 15 inches, into two parts, one for the upper and one for the lower part of sleeve. For the lower part we use about one-half inch more than one-third of the full measure, which is  $5\frac{1}{2}$  inches, and the balance, which is  $9\frac{1}{2}$  inches, is left for upper part.

Now measure on the long upward line on the left-hand side, and make the necessary mark for the upper sleeve, which is 9 $\frac{1}{2}$  inches from the lower line.

As the under sleeve is always drawn inside of the upper sleeve, we make the mark for the under sleeve on the same line, only  $5\frac{1}{2}$  inches from the bottom line. Next measure on the long upward line at the other end of the paper, and make the same marks, one  $5\frac{1}{2}$  inches and the other  $9\frac{1}{2}$  inches from the bottom line, the same as on the left-hand upward line. From these last two marks on the right-hand side draw two long straight vertical lines to meet the two marks on the left-hand upward line, running parallel, but extending at least 8 inches further, so as to make them fully as long as your outside arm length.

We now complete the under sleeve. Our complete inside arm length is 24 inches—10 inches from the wrist and 14 inches from shoulder to elbow.

Now place the measure on the band line, where the mark for the undersleeve was made, measure 10 inches in slant direction to meet the long line drawn for the undersleeve, and draw a slant line to that point.

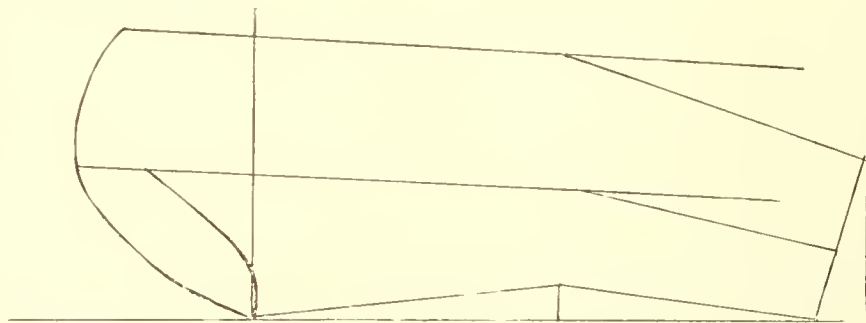
From the same point measure 14 inches on the long line, make a mark, and from that mark draw a curved line, as in illustration of sleeve, to the place where lower line and the long, upward line meet.

This completes the undersleeve. To complete the upper sleeve, we follow the same method.

We measure 10 inches from the upper end of hand line, in a slant direction to the long upper line, make a mark, and to that point we draw a slant line, the same as we did for the under or lower sleeve.

From that point we measure again on the long, upper line, but, instead of making the mark 14 inches away, we make it 15 inches, so as to give more room for the elbow on the outside. From this mark we draw a long, curved line to meet the previous curved line, as in illustration 9, the curve being in the opposite direction.

This completes the plain, tight-fitting sleeve, which is the foundation of all other styles.



## LEG-OF-MUTTON SLEEVE.

The most stylish tailor-made sleeve is the so-called leg-of-mutton sleeve. It is used for tailor-made dresses, coats, Eton jackets, English waists, etc.

To make this style of sleeve, draw and cut out the tight-fitting sleeve, as explained before. As this sleeve has only the inside seam, place the upper and under part of sleeve together on the outside line, as the illustration shows. Cut waist and inside lines exactly, allowing 5 inches for fullness, as in illustration.



Leg of Mutton, or Tailor-made Sleeve.



Above cut represents the tailor made (or leg of mutton) sleeve finished. The tailor-made is the modern name for it. In finishing this sleeve, sew inside seam and shir it all around the top.

## SKIRT.

In order to draft a skirt pattern, we need the following measurements:

Front Length.

Back Length.

Hip Measure.

To take the front length, measure from the centre of the stomach to the toe of the foot, and have the lady stand erect. Do not allow her to bend forward to see how you measure as that will make the skirt too short.

For the back length of the skirt measure from the centre of the back, at the waist line, to about one-half inch from the floor, or to suit the length you desire.

The hip measure is taken in the same way as the hip measure for the waist, only a little tighter.

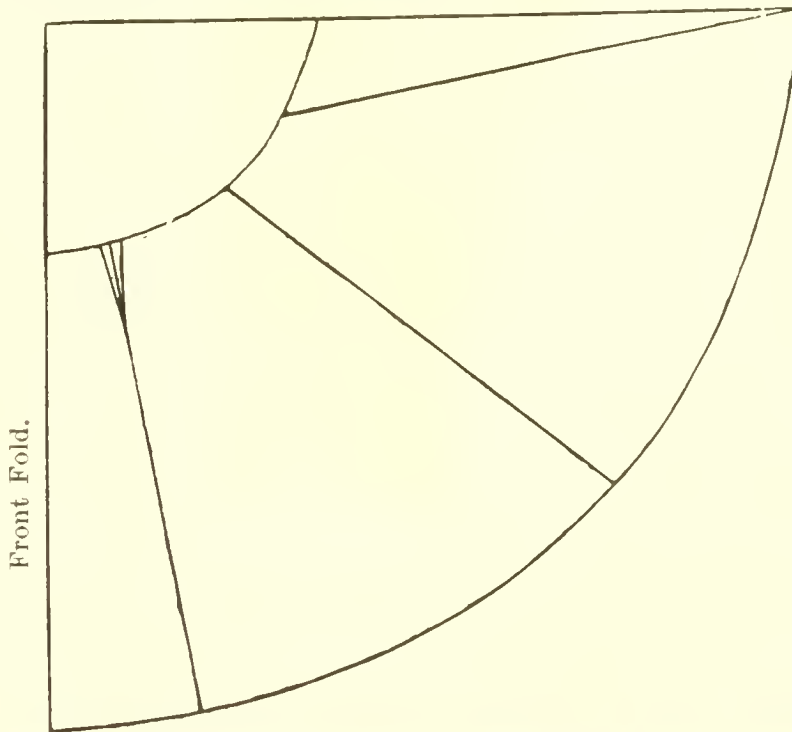
We draft our pattern in a circle, commencing with the hip, and as we draw only a half pattern, we take half of the hip measure, less three inches, which we leave open for shirring.

We will base our skirt pattern on the following measurements: Hip, 38 inches; front length, 39 inches; and back length, 40 inches.

Now take a square sheet of paper at least  $1\frac{3}{4}$  yards long and  $1\frac{3}{4}$  yards wide, which we get by pasting several sheets together.

A skirt pattern requires two curved lines like circles, one for the top and one for the bottom. The first circle depends on the hip measure.

We begin our work by drafting the top circle. First, we draw two long lines near the edge of the paper, forming a right angle in the left-hand corner of the paper, as in the next illustration. We can dispense with these two lines by using the edge of the paper, but we will use them in our exercise. The vertical line in front of you represents the front of the skirt, and the other line is the back.





Now, measure about 17 inches on the front line, and make a mark; then measure about 20 inches on the back line, and make another mark, and then draw an evenly curved line from one mark to the other, as in illustration.

The size of the circle we draw depends on the hip measure. In our sample skirt the hip is 38 inches. As we draft only a half pattern, we take half of this measure, which is 19 inches, less 3 inches, which we leave open for shirring.

Now, measure on the curved line 16 inches from the front line and make a mark. From this mark measure 6 inches and make another mark. This completes the top circle.

We now draft a line for the bottom of the skirt.

This is done by measuring all around, 40 inches, which is our length measure from the top curved line, from the front line to the back line.

Both lines must be evenly curved. If the curves do not look round like an umbrella, your hip curve is not correct, and is either too large or too small, and the work must be done over again until it is correct.

If the curves are good, we draw a slanted line from the last mark on the top curve to the left-hand end of the larger curve. This slanted line is now our real back seam, and the space between this line and the outside line is cut out.

The bottom circle is the bottom of the skirt, while the top line is the waist line. This is a skirt with one seam.

#### SKIRT WITH FIVE GORES.

Place the measure six inches below the waist line on the outside front line; from there measure  $6\frac{1}{2}$  inches inside and make a mark, and another mark in the same direction 16 inches from the front line; then measure on the bottom curved line and make a mark 13 inches from the front line, just twice as far as in the top line; then draw a straight line from this mark, through the other mark above, to the small curve, which is the waist line.

Now, make two marks at the waist line, one on each side of the straight line, just one-half inch from it, and from these two marks draw two curved lines 6 inches long to form peaked point at the mark made there, as in illustration.

The space on the bottom curve, from the straight line to the left-hand end, is divided in half, making a mark in the centre, and from there a straight line is drawn to the waist line, through the second mark, made 16 inches from the front line.

When cutting out allow seams.

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